

# Work Order ID 120452

Wednesday, June 04, 2014 3:05:37 PM

Page 1

Item ID: D350-591-133

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14 Start Qty: 5.00 \*5\*

Cust Item ID:

Required Date: 6/04/14 Req'd Qty: 5.00 \*5\*

Customer:

Reference:

Approvals: Process Plan: MCS Date: 1406-06 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr             |                      |         |        |              |               |               |                  |                |
| D2946                          | Rev B                    |                      |         |        |              |               |               |                  |                |

100 Document Control 0.00

\*100\*

DC

Doc.Control -USB or Paperwork

DOCUMENT CONTROL

Memo M.A.O.

0.00

Photocopy bluefile and type labels as per PPP D350-591-133 CHG003

JAN 05 2015 <sup>DAS</sup><sub>26</sub>  
3-89

MCS 14-12-22 4 5

110 Large Fab 0.00

\*110\*

Large Fab

Large Fab

Large Fab

Memo

0.00

1-Cut D2622-120 extrusion to 62.06" long as per Dwg D2946

2-Deburr

\*\*Ensure that 57.09" minimum extrusion is kept and identify to be used for D350-591-215/-216.\*\*

5X DL 14/11/18

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DD

**Work Order ID 120452****\*120452\***

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14 Start Qty: 5.00

**\*5\***

Cust Item ID:

Required Date: 6/04/14 Req'd Qty: 5.00

**\*5\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 150                            | QC5- Inspect part completeness to step on W/O | 0.00                 |         |        |              |               |               |                  |                |
| <b>*150*</b>                   |                                               |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                          | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                               |                      |         |        |              |               |               |                  |                |
| 160                            | Chemical Conversion Coat per QSI005 4.1       | 0.00                 |         |        |              |               |               |                  |                |
| <b>*160*</b>                   |                                               |                      |         |        |              |               |               |                  |                |
| HandFinish                     | Memo                                          | 0.00                 |         |        |              |               |               |                  |                |
| Hand Finishing                 |                                               |                      |         |        |              |               |               |                  |                |
| 170                            | QC7-Inspect Chemical Conversion Coat          | 0.00                 |         |        |              |               |               |                  |                |
| <b>*170*</b>                   |                                               |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                          | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                               |                      |         |        |              |               |               |                  |                |

(5) 14-11-24 PD

(5) 14-11-26 JGC

(5)

DAS  
38  
9-89

NOV 28 2014

# Work Order ID 120452

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**\*120452\***

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Item ID: D350-591-133 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Aft Maintenance Step (Fits LH or RH)  
 Start Date: 6/04/14 Start Qty: 5.00 **\*5\*** Cust Item ID:  
 Required Date: 6/04/14 Req'd Qty: 5.00 **\*5\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID               | Operation<br>Description                                                                                                     | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------------------|
| 180<br><b>*180*</b><br>Large Fab             | Large Fab                                                                                                                    | 0.00                 |         |        |              | 5             |               | DEC 01 2014      | DAS<br>24<br>9-89             |
|                                              | Memo                                                                                                                         | 0.00                 |         |        |              |               |               |                  |                               |
|                                              | Remove alodine prior to welding. Weld end cap as per Dwg D2946. Grind end cap weld flush.<br>A/R AL ROD BATCH <u>M128956</u> |                      |         |        |              |               |               |                  |                               |
| 190<br><b>*190*</b><br>QC<br>Quality Control | QC10- Inspect visual per QSI004- ground welds                                                                                | 0.00                 |         |        |              | 5             |               |                  | DAS<br>38<br>9-89<br>14-12-02 |
|                                              | Memo                                                                                                                         | 0.00                 |         |        |              |               |               |                  |                               |
| 200<br><b>*200*</b><br>QC<br>Quality Control | QC5- Inspect part completeness to step on W/O                                                                                | 0.00                 |         |        |              | 5             |               |                  | DAS<br>38<br>9-89<br>14-12-02 |
|                                              | Memo                                                                                                                         | 0.00                 |         |        |              |               |               |                  |                               |

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**Item ID:** D350-591-133

**Accept**

**\*N900040100\***

### Setup

**Start**

**\*NS1\***

Revision ID:

**Stop**

\*NS2\*

**Item Name:** Aft Maintenance Step (Fits LH or RH)

**Start Date:** 6/04/14

**Start Qty:** 5.00

**\*5\***

**Cust Item ID:****Required Date:** 6/04/14

**Req'd Qty: 5.00**

**\*5\***

**Customer:**

**Reference:**

Run

**Start**

**\*NR1\***

**Approvals:**

### Process Plan:

Date:

### Tooling:

Date:

**Stop**

**\*NR2\***

**QC:**

Date:

SPC (Y/N):

Date:

[illegible]

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**Item ID:** D350-591-133

**Accept**

**\*N900040100\***

**Setup Start**

**\*NS1\***

Revision ID:

**Stop**

**\*NS2\***

**Item Name:** Aft Maintenance Step (Fits LH or RH)

**Start Date:** 6/04/14      **Start Qty:** 5.00

**\*5\***

**Cust Item ID:**

**Required Date:** 6/04/14      **Req'd Qty:** 5.00

**\*5\***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start

**\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Stop**

**\*NR2\***

[illegible]

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Item ID: D350-591-133

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14 Start Qty: 5.00 **\*5\***

Cust Item ID:

Required Date: 6/04/14 Req'd Qty: 5.00 **\*5\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                              | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty     | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-------------------------------------------------------|----------------------|---------|--------|--------------|---------------|-------------------|------------------|----------------|
| 270                            | Packaging                                             | 0.00                 |         |        |              | (4x)          | DAS<br>45<br>9.80 |                  | JAN 13 2015    |
| <b>*270*</b>                   |                                                       |                      |         |        |              |               |                   |                  |                |
| Packaging                      | Memo                                                  | 0.00                 |         |        |              |               |                   |                  |                |
| Packaging                      | Identify and pack for shipping as per PPPD350-591-133 |                      |         |        |              |               |                   |                  |                |
|                                | Location: <u>038</u>                                  |                      |         |        |              |               |                   |                  |                |
|                                | PPP Rev: _____                                        |                      |         |        |              |               |                   |                  |                |
| 280                            | QC21- Final Inspection - Work Order Release           | 0.00                 |         |        |              |               |                   |                  |                |
| <b>*280*</b>                   |                                                       |                      |         |        |              |               |                   |                  |                |
| QC                             | Memo                                                  | 0.00                 |         |        |              |               |                   |                  |                |
| Quality Control                |                                                       |                      |         |        |              |               |                   |                  |                |

ML5 7501-15

① 15.1-14

# Picklist Print

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Page 1

Work Order ID: 120452

**\*120452\***

Parent Item: D350-591-133

**\*D350-591-133\***

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14

Required Date: 6/04/14

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:B05.10.14Modified step 10KJ/EC  
IPP Rev:B06.07.19D2946 @ rev.b EC

| Component Item ID/<br>Item Name     | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued     | Date<br>Issued | Status |
|-------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|-------------------|----------------|--------|
| AN4-11A<br><b>*AN4-11A*</b><br>BOLT |                        | Purchased     | No          |                     |                  | 250             | Each               | 494.0000       | 20          |              |                   |                |        |
|                                     |                        |               |             |                     |                  |                 |                    |                |             |              | DAS<br>28<br>9-89 | DEC 2 2 2014   |        |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| FG       | 20      |          |
| 120731   | 20      |          |
| ST356    | 182     |          |
| M128362  | 182     |          |
| ST514    | 292     |          |
| M126333  | 5       |          |
| M127376  | 58      |          |
| M128769  | 229     |          |

|                                     |  |           |    |  |  |     |      |          |    |  |                   |  |  |
|-------------------------------------|--|-----------|----|--|--|-----|------|----------|----|--|-------------------|--|--|
| AN4-14A<br><b>*AN4-14A*</b><br>Bolt |  | Purchased | No |  |  | 250 | Each | 831.0000 | 40 |  |                   |  |  |
|                                     |  |           |    |  |  |     |      |          |    |  | DAS<br>28<br>9-89 |  |  |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| FG       | 5       |          |
| 122141   | 5       |          |
| ST344    | 200     |          |
| M129384  | 200     |          |
| ST357    | 16      |          |
| 124221   | 16      |          |
| ST515    | 610     |          |
| M127044  | 1       |          |
| M128324  | 109     |          |
| M128769  | 500     |          |

130716



# Picklist Print

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Work Order ID: 120452

**\*120452\***

Parent Item: D350-591-133

**\*D350-591-133\***

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14

Required Date: 6/04/14

Start Qty: 5.00

Required Qty: 5.00

AN4-16A

Purchased

No

250

Each

331.0000

40

**\*AN4-16A\***

Bolt

DAS  
06  
9-89

\*\*

DAS  
28  
9-89

DEC 22 2014

Location

Loc Qty

Loc Code

FG

5

121541

5

ST357

176

M128324

26

M128978

150

ST515

150

M128813

150

12840346  
← 131139X34

AN4-7A

Purchased

No

250

Each

140.0000

10

**\*AN4-7A\***

Bolt

DAS  
06  
9-89

\*\*

DAS  
28  
9-89

DAS  
46  
9-89

Location

Loc Qty

Loc Code

ST355

140

m126193

140

D2230-1

Manufactured

No

250

Each

481.0000

20

**\*D2230-1\***

Mounting Lug

DAS  
6  
9-89

\*\*

DAS  
28  
9-89

DAS  
46  
9-89

Location

Loc Qty

Loc Code

FG

4

84136

4

ST469

21

101834

1

110834

20

ST470

456

110834

12

113437

124

113438

1

115306

159

116380

160

16 20

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Shop Packet Print

# Picklist Print

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Work Order ID: 120452

**\*120452\***

Parent Item: D350-591-133

**\*D350-591-133\***

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14

Required Date: 6/04/14

Start Qty: 5.00

Required Qty: 5.00

D2230-3

Manufactured No

250

Each

408.0000

20

**\*D2230-3\***

Mounting Lug

\*\*

DAS  
28  
9-89

DEC 22 2014

Location

Loc Qty

Loc Code

|        |     |  |
|--------|-----|--|
| FG     | 7   |  |
| 109344 | 4   |  |
| 89045  | 3   |  |
| ST     | 159 |  |
| 116378 | 159 |  |
| ST469  | 242 |  |
| 108668 | 29  |  |
| 109344 | 11  |  |
| 114151 | 42  |  |
| 114921 | 160 |  |

DAS  
46  
9-89

20-16

D2622-120C

Manufactured No

110

Each

95.0000

0.52

3

**\*D2622-120C\***

Step Extrusion

\*\*

DL 14/11/18

Location

Loc Qty

Loc Code

|        |    |  |
|--------|----|--|
| HALL   | 32 |  |
| 109575 | 32 |  |
| WA003  | 63 |  |
| 101765 | 1  |  |
| 115141 | 62 |  |

B5

D2732

Manufactured No

250

f

1,101.984

10

**\*D2732\***

Rubber Extrusion

\*\*

DAS  
28  
9-89

DAS  
46  
9-89

Location

Loc Qty

Loc Code

|        |             |  |
|--------|-------------|--|
| ST410  | 1101.984237 |  |
| 107346 | 101.984237  |  |
| 117118 | 1000        |  |

8-10

cut(8) at 3'00"  
per kit =  
(x5)

# Picklist Print

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Page 4

Work Order ID: 120452

**\*120452\***

Parent Item: D350-591-133

**\*D350-591-133\***

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14

Required Date: 6/04/14

Start Qty: 5.00

Required Qty: 5.00

D2734

Manufactured No

130

Each

131.0000

2

10

**\*D2734\***

Step End Plate

**\*\***

B124317 → 10

Location

Loc Qty

Loc Code

WA003

131

119286

92

119498

38

99709

1

D2856-400

Manufactured No

250

f

394.0000

1.26

7

**\*D2856-400\***

Abrasion Strip 4" Wide (Per Foot)

**\*\***

DAS  
28  
9-89

DAS  
46  
DEC 22 2014

Location

Loc Qty

Loc Code

ST403

392

112524

176

117887

216

ST408

2

109578

2

D2944

Manufactured No

130

Each

0.0000

2

10

**\*D2944\***

Step Mounting Plate

D2945

Manufactured No

250

Each

20.0000

5

**\*D2945\***

Mounting Plate

**\*\***

B119673 → 10

DAS  
28  
9-89

DAS  
46  
9-89

Location

Loc Qty

Loc Code

ST022

20

112829

10

94542

10

DAS  
28  
9-89

Palco

B94994

2

2

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# Picklist Print

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Work Order ID: 120452

\*120452\*

Parent Item: D350-591-133

\*D350-591-133\*

Parent Item Name: Aft Maintenance Step (Fits LH or RH)

Start Date: 6/04/14

Required Date: 6/04/14

Start Qty: 5.00

Required Qty: 5.00

MS21042L4

Purchased

No

250

Each

6,012.000

70

\*MS21042L4\*

Locknut

\*\*

DAS  
28  
9-89

DEC 22 2014

DAS  
46  
9-89

## Location

## Loc Qty

## Loc Code

ST314

44

m126015

12

m126275

32

ST509

5957

m127255

71

m127813

976

m128300

85

m128798

4825

ST518

11

m127376

11

NAS1149D0463J

Purchased

No

250

Each

5,002.000

70

\*NAS1149D0463J\*

WASHER

\*\*

DAS  
28  
9-89

DAS  
46  
9-89

## Location

## Loc Qty

## Loc Code

ST510a

5002

16941

8

M124778

18

M126221

20

M127813

22

M127904

3000

M128591

434

M128995

1500

DAS  
28  
9-89

130799

D3338-1 (5 Kit)  
SD  
2er EN14.670

127949

~~B.33248 X1~~

DAS  
28  
9-89

DAS  
46  
9-89

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Shop Packet Print

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**DART**

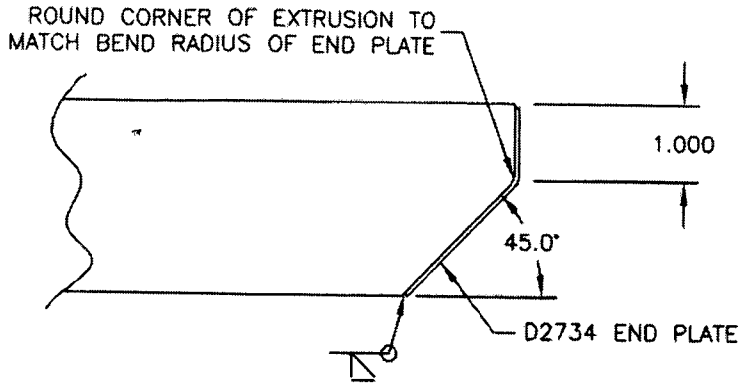
## D2946 STEP ASSEMBLY PARTS LIST

| Part No. | Description         | QTY |
|----------|---------------------|-----|
| D2046    | Step Assembly       | X   |
| D2622-63 | STEP EXTRUSION*     | 1   |
| D2734    | END PLATE           | 2   |
| D2944    | STEP MOUNTING PLATE | 2   |

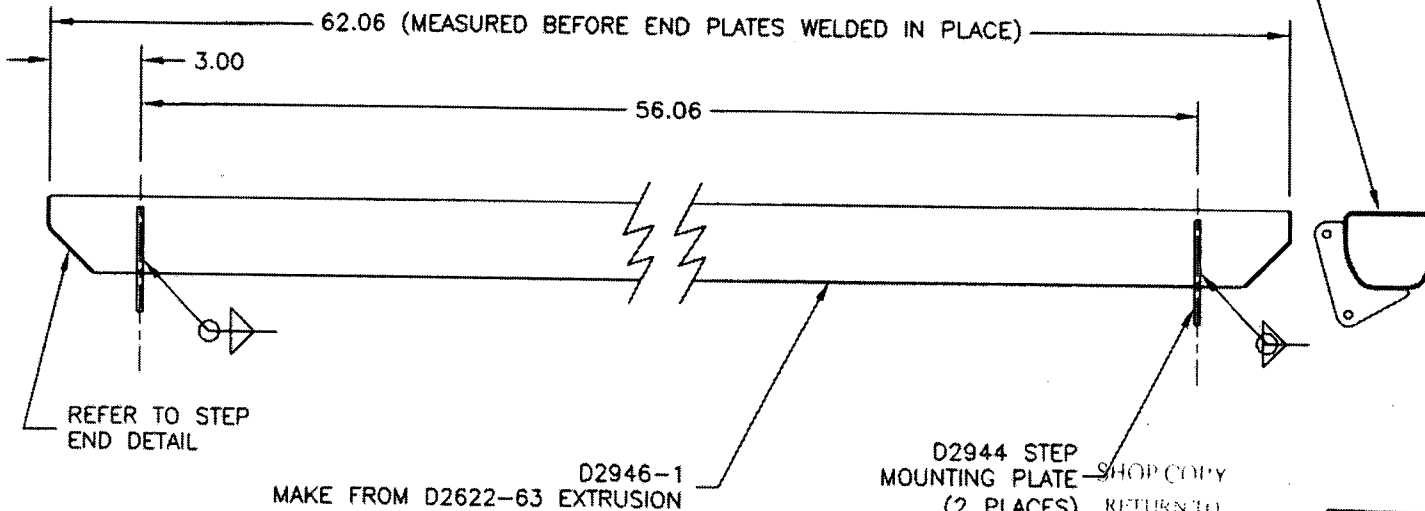
\*cut per drawing

NOTE: ALL WELDS SHALL BE  
100% VISUALLY  
INSPECTED BY A  
QUALIFIED INSPECTOR  
PER DART QSI 004

APPLY BLACK ANTI-SKID  
ON TOP SURFACE TO  
BOTTOM OF TOP RADIUS



TYPICAL STEP END DETAIL  
NOT TO SCALE



D2946-041 STEP ASSEMBLY

D2946 STEP ASSEMBLY

- 1) MAKE FROM D2622 STEP EXTRUSION  
2) WELD PER DART QSI 004  
3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ENTIRE ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4  
4) ALL DIMENSIONS ARE IN INCHES  
5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- WITHOUT NOTICE  
WORK ORDER  
NO. 120452M  
4-06

STEP  
PLATE—~~SHOP COPY~~  
ACES) RETURNED  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 120452 Mc

05-11-28

|                        |                                        |                      |                                                   |  |
|------------------------|----------------------------------------|----------------------|---------------------------------------------------|--|
| DESIGN<br>CP           |                                        | DRAWN BY<br>PH       | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |  |
| CHECKED<br>[Signature] | APPROVED<br>[Signature]                | DRAWING NO.<br>D2946 | REV. B<br>SHEET 1 OF 1                            |  |
| DATE<br>05.11.14       | TITLE<br>STEP ASSEMBLY<br>SCALE<br>1:6 |                      |                                                   |  |
| A                      | 99.12.13<br>NEW ISSUE                  |                      |                                                   |  |
| B                      | 05.11.14<br>UPDATE FINISHING NOTE      |                      |                                                   |  |

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## 5. PARTS LIST

| Qty<br>-111A | Qty<br>-113 | Qty<br>-115 | Qty<br>-117A | Qty<br>-119 | Qty<br>-133 | Part Number   | Description                                       |
|--------------|-------------|-------------|--------------|-------------|-------------|---------------|---------------------------------------------------|
| X            |             |             |              |             |             | D350-591-111A | <i>Heli-Access-Step</i> ™, Long Step – High Skid  |
|              | X           |             |              |             |             | D350-591-113  | <i>Heli-Access-Step</i> ™, Short Step – High Skid |
|              |             | X           |              |             |             | D350-591-115  | <i>Heli-Access-Step</i> ™, Short Step – Low Skid  |
|              |             |             | X            |             |             | D350-591-117A | <i>Heli-Access-Step</i> ™, Pre-Flight Step        |
|              |             |             |              | X           |             | D350-591-119  | <i>Heli-Access-Step</i> ™, Long Step – Low Skid   |
|              |             |             |              |             | 1 X         | D350-591-133  | <i>Heli-Access-Step</i> ™, Aft Maintenance Step   |
|              | 1           |             |              |             |             | D2310         | STEP ASSEMBLY (HIGH-SHORT)                        |
| 1            |             |             |              |             |             | D2311         | STEP ASSEMBLY (HIGH-LONG)                         |
|              |             | 1           |              |             |             | D2354         | STEP ASSEMBLY (LOW-SHORT)                         |
|              |             |             |              | 1           |             | D2355         | STEP ASSEMBLY (LOW-LONG)                          |
|              |             |             |              |             | 1           | D2946-041     | STEP ASSEMBLY (MAINTENANCE)                       |
| 4            | 2           | 2           | 2            | 2           |             | D2171         | CLAMP                                             |
| 4            | 2           | 2           | 2            | 2           |             | D2182B035     | CUSHION                                           |
|              |             |             |              |             | 4           | D2230-1       | MOUNTING LUG                                      |
|              |             |             |              |             | 4           | D2230-3       | MOUNTING LUG                                      |
| 8            | 4           | 4           | 4            | 4           |             | D2274         | RADIUS BLOCK                                      |
|              |             |             | 1            |             |             | D2362-041     | SUPPORT BRACKET                                   |
| 2            | 1           |             |              | 1           |             | D2362-3       | SUPPORT BRACKET                                   |
|              |             | 1           |              |             |             | D2362-5       | SUPPORT BRACKET                                   |
| 2            | 1           | 1           | 1            | 1           | 2           | D2856-400-720 | ABRASION STRIP                                    |
|              |             |             |              |             | 1           | D2945         | MOUNTING PLATE                                    |
| 2            | 2           | 2           |              | 2           |             | AN3-37A       | BOLT                                              |
|              |             |             |              |             | 2           | AN4-7A        | BOLT                                              |
|              |             |             |              |             | 4           | AN4-11A       | BOLT                                              |
|              |             |             |              |             | 8           | AN4-14A       | BOLT                                              |
|              |             | 4           |              |             |             | AN4-16A       | BOLT                                              |
| 8            | 4           |             |              | 4           |             | AN4-20A       | BOLT                                              |
| 1            | 1           | 1           | 4            | 1           |             | AN4-22A       | BOLT                                              |
| 4            | 4           | 4           |              | 4           |             | AN960JD10     | WASHER                                            |
| 10           | 6           | 2           | 4            | 6           | 14          | AN960JD416    | WASHER                                            |
|              |             | 4           |              |             |             | AN960JD416L   | WASHER                                            |
| 2            | 2           | 2           |              | 2           |             | MS21042L3     | NUT                                               |
| 9            | 5           | 5           | 4            | 5           | 14          | MS21042L4     | NUT                                               |

| Qty<br>-121 | Qty<br>-122 | Qty<br>-123 | Qty<br>-124 | Part Number   | Description                                           |
|-------------|-------------|-------------|-------------|---------------|-------------------------------------------------------|
| X           |             |             |             | D350-591-121  | <i>Heli-Access-Step</i> ™, Short Step – High Skid, LH |
|             | X           |             |             | D350-591-122  | <i>Heli-Access-Step</i> ™, Short Step – High Skid, RH |
|             |             | X           |             | D350-591-123  | <i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH  |
|             |             |             | X           | D350-591-124  | <i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH  |
| 1           |             |             |             | D2351-041     | STEP ASSEMBLY (HIGH-SHORT, LH)                        |
|             | 1           |             |             | D2351-042     | STEP ASSEMBLY (HIGH-SHORT, RH)                        |
|             |             | 1           |             | D2356-041     | STEP ASSEMBLY (LOW-SHORT, LH)                         |
|             |             |             | 1           | D2356-042     | STEP ASSEMBLY (LOW-SHORT, RH)                         |
| 1           | 1           | 1           | 1           | D2230-1       | MOUNTING LUG                                          |
| 1           | 1           | 1           | 1           | D2230-3       | MOUNTING LUG                                          |
| 1           | 1           | 1           | 1           | D2856-400-720 | ABRASION STRIP                                        |
| 2           | 2           | 2           | 2           | AN3-37A       | BOLT                                                  |
| 3           | 3           | 3           | 3           | AN4-13A       | BOLT                                                  |
| 4           | 4           | 4           | 4           | AN960JD10     | WASHER                                                |
| 6           | 6           | 6           | 6           | AN960JD416    | WASHER                                                |
| 2           | 2           | 2           | 2           | MS21042L3     | NUT                                                   |
| 3           | 3           | 3           | 3           | MS21042L4     | NUT                                                   |

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER  
AND  
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER  
REF CANADIAN STC: SH92-6  
REF FAA STC: SH967NE

For D350-591-121/-122/-123/-124/-133 steps, customers have the option of installing D2732-030 cushions under the D2230-1/-3 clamps to accommodate varying crosstube diameters and to improve fit. It is also acceptable to use longer or shorter AN4 bolts, and/or extra AN960JD416 washers under the nut to ensure 1.5 to 4 threads in safety. See Figure 1 on sheet 2 of this service instruction for reference.

For D350-591-121/-122 steps at CHG 005, D350-591-123/-124 steps at CHG 004, and D350-591-133 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

## ADD:

| Qty<br>-121 | Qty<br>-122 | Qty<br>-123 | Qty<br>-124 | Qty<br>-133 | Part Number  | Description                                           |
|-------------|-------------|-------------|-------------|-------------|--------------|-------------------------------------------------------|
| X           |             |             |             |             | D350-591-121 | <i>Heli-Access-Step</i> ™, Short Step – High Skid, LH |
|             | X           |             |             |             | D350-591-122 | <i>Heli-Access-Step</i> ™, Short Step – High Skid, RH |
|             |             | X           |             |             | D350-591-123 | <i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH  |
|             |             |             | X           |             | D350-591-124 | <i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH  |
|             |             |             |             | X           | D350-591-133 | <i>Heli-Access-Step</i> ™, Aft Maintenance Step       |
| 2           | 2           | 2           | 2           | 8           | D2732-030    | CUSHION                                               |
| 2           | 2           | 2           | 2           | 18          | AN4-16A      | BOLT                                                  |

The DSI-9459-011 kit is available for customers with earlier model D350-591-121/-122/-123/-124 steps. Longer AN4 bolts are provided to fasten the clamps. The DSI-9459-013 kit is available for customers with earlier model D350-591-133 steps.

| Qty<br>-011 | Qty<br>-013 | Part Number  | Description                                        |
|-------------|-------------|--------------|----------------------------------------------------|
| X           |             | DSI-9459-011 | Rubber Cushion Kit (for -121/-122/-123/-124 steps) |
|             | X           | DSI-9459-013 | Rubber Cushion Kit (for -133 steps)                |
| 2           | 8           | D2732-030    | CUSHION                                            |
| 2           | 8           | AN4-16A      | BOLT                                               |

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY:   
D. SHEPHERD (DE # 02)

DATE: 09.06.24  
CERT. NO.: SH92-6  
ISSUE NO.: 11

|            |                                                                                     |                                                                                                                                                                                                                                                                                          |              |
|------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| B          | AN4-16A WAS -17A FOR -013/-133 KIT                                                  | CP                                                                                                                                                                                                                                                                                       | 09.06.24     |
| A          | NEW ISSUE                                                                           | CP                                                                                                                                                                                                                                                                                       | 09.04.17     |
| REV.       | DESCRIPTION                                                                         | BY                                                                                                                                                                                                                                                                                       | DATE         |
| DESIGN     |  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                 |              |
| DRAWN      |  |                                                                                                                                                                                                                                                                                          |              |
| CHECKED    |  | DRAWING NO.                                                                                                                                                                                                                                                                              | REV. B       |
| MFG. APPR. |  | DSI 9459                                                                                                                                                                                                                                                                                 | SHEET 1 OF 2 |
| APPROVED   |  | TITLE                                                                                                                                                                                                                                                                                    | SCALE        |
| DE APPR.   |  | OPTIONAL CLAMP MODIFICATIONS                                                                                                                                                                                                                                                             | NTS          |
| DATE       | 09.06.24                                                                            | <small>COPYRIGHT © 2009 BY DART AEROSPACE LTD<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |

# DART SERVICE INSTRUCTION

## TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 REV. 3

REF TCCA STC: SH92-6  
REF FAA STC: SH967NE

### 1.0 Purpose

It has come to DART's attention that it may be difficult to fasten the D350-591-133 Aft Maintenance Step and D350-591-213/-214 Heli-Access-Step Installations to the forward crosstube due to variations between crosstubes. For this reason, DART is adding the D3338-1 Mounting Lug to the D350-591-133 Aft Maintenance Step and D350-591-213/-214 Heli-Access-Step Kits at CHG 004 and later.

For D350-591-133 Aft Maintenance Step and D350-591-213/-214 Heli-Access-Step Kits at CHG 003 and earlier, DSI 9712-011 Mounting Lug Kit can be procured from DART. The kit contains all parts to upgrade a single step kit.

### 2.0 Installation

- 2.1 It is acceptable to install the D3338-1 Mounting Lug in lieu of the D2230-1 Mounting Lug as required to reduce the gap between step and the forward crosstube in accordance with the figures of this service instruction.
- 2.2 The height to set up the D350-591-133 Maintenance Step has been revised from 7.0in to 6.0in  $\pm$  1.0in to provide more flexibility. See sheet 2 of this service instruction.
- 2.3 In all other respects, install the D350-591-133 Aft Maintenance Step and D350-591-213/-214 Heli-Access-Steps in accordance with Section 3.1 of Installation Instructions D350-591 or Section 32.1 of Instructions for Continued Airworthiness ICA-D350-591.

### 3.0 Parts List Change

The following additional part is provided with D350-591-133 Aft Maintenance Step and D350-591-213/-214 Heli-Access-Steps at CHG 004:

| Qty<br>-133 | Qty<br>-213 | Qty<br>-214 | Part Number  | Description                                   |
|-------------|-------------|-------------|--------------|-----------------------------------------------|
| X           |             |             | D350-591-133 | Heli-Access-Step™, Aft Maintenance Step       |
|             | X           |             | D350-591-213 | Heli-Access-Step™, Short Step – High Skid, LH |
|             |             | X           | D350-591-214 | Heli-Access-Step™, Short Step – High Skid, RH |
| 1           | 1           | 1           | D3338-1      | MOUNTING LUG (ADD)                            |

### 4.0 DSI 9712-011 Mounting Lug Kit Parts List

For existing D350-591-133 Aft Maintenance Steps and D350-591-213/-214 Heli-Access-Steps at CHG 003 or earlier, one DSI 9712-011 kit upgrades one step installation:

| Qty<br>-011 | Part Number  | Description      |
|-------------|--------------|------------------|
| X           | DSI 9712-011 | Mounting Lug Kit |
| 1           | D3338-1      | MOUNTING LUG     |

### 5.0 Weight and Balance

There is a negligible weight change associated with this modification.

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-Q-01

APPROVED

BY:   
D. SHEPHERD (DE # 02)

DATE: 14.12.04  
CERT. NO.: SH92-6  
ISSUE NO.: 11

|            |                                                                                     |                                                                                                                                                                                                                                                                                                  |              |
|------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A          | NEW ISSUE                                                                           | MB                                                                                                                                                                                                                                                                                               | 14.10.22     |
| REV.       | DESCRIPTION                                                                         | BY                                                                                                                                                                                                                                                                                               | DATE         |
| DESIGN     |  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                         |              |
| DRAWN      |  |                                                                                                                                                                                                                                                                                                  |              |
| CHECKED    |  | DRAWING NO.                                                                                                                                                                                                                                                                                      | REV. A       |
| MFG. APPR. | N/A                                                                                 | DSI 9712                                                                                                                                                                                                                                                                                         | SHEET 1 OF 3 |
| APPROVED   |  | TITLE                                                                                                                                                                                                                                                                                            | SCALE        |
| DE APPR.   |  | INSTALLATION OPTION                                                                                                                                                                                                                                                                              | NTS          |
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